APPENDIX I- PLANNING GRANTAPPLICATION FORM

Applicant (Agency & address - including zip)			Proposed Date of Completion: December 2011
	Check one		Grant Amount Requested: $ 380,000
	City	X	If Joint Proposal, list participating entities/ contact person:
City of Morgan Hill	County		
17555 Peak	MPO		
Morgan Hill, CA 95037	COG		
	RTPA		
	JPA		
	Joint Proposal		

Lead Applicant's Name: City of Morgan Hill

Title of Proposal (summarize the deliverable to be funded by this grant)

Solar Highways Pilot Project - Creating Solar Power in Excess Freeway Right of Way

Applicant's Representative Authorized in Resolution	Person with Day to Day Responsibility for Plan (if different from Authorized Representative)
Name: J. Edward Tewes	Name: Anthony Eulo
Title: City Manager	Title: Program Administrator
Phone: (408) 779-7271	Phone: (408) 779-7247
Email: ed.tewes@morganhill.ca.gov	Email: anthony.eulo@morganhill.ca.gov

Check all of the following that are incorporated or applicable to the proposal:

	Focus Area		Program Objectives
X	Focus Area # 1		Applying for 20% EDC set aside
	Focus Area # 2		
	Focus Area # 3	X	Improve air and water quality
	Eligibility Requirements (mandatory)	X	Promote public health
X	Consistent with State Planning Priorities	X	Promote equity
X	Reduces GHG emissions on a permanent basis	X	Increase affordable housing
X	Collaboration requirement	X	Increase infill and compact development
	Priority Considerations	X	Revitalize urban and community centers
X	Demonstrates collaboration & community involvement	X	Protect natural resources and agricultural lands
X	Addresses climate change impacts	X	Reduce automobile usage and fuel consumption
X	Serves as best practices	X	Improve infrastructure systems
X	Leverages additional resources	X	Promote water conservation
X	Serves an economically disadvantaged community	X	Promote energy efficiency and conservation
X	Serves a severely disadvantaged community	X	Strengthen the economy

I certify that the information contained in this plan application, including required attachments, is complete and accurate

Signature: _____ 8-30-10

Applicant's Authorized Representative as shown in Resolution — Date

Print Name and Title: J. Edward Tewes, Morgan Hill City Manager

CITY OF MORGAN HILL

PROPOSAL SUMMARY STATEMENT

Proposal Description

The City of Morgan Hill is working in coordination with Caltrans and its private sector partner, Republic Cloverleaf Solar LLC ("Republic"), to create a Solar Highways Pilot Project. The Project will generate sustainable, renewable energy within currently vacant freeway interchanges in Santa Clara County, and serve as a model of solar energy that can be replicated in communities throughout California. The Project will tie solar energy production into other Strategic Growth Council goals, particularly job generation, infill and compact development, protection of natural resources and agricultural land, and strengthening of economically disadvantaged communities.

Republic is focused on developing commercial photovoltaic (PV) power generation systems on infill, remnant government owned properties. Republic's plan is to build and operate this system within Caltrans owned right-of-way, specifically within freeway interchanges. Republic has a Memorandum of Understanding and Exclusive Negotiating Agreement with Caltrans to develop this Pilot Project on up to seven (7) interchanges located in Santa Clara County (two interchanges in Morgan Hill) totaling over 65 acres of property. Caltrans will receive revenue from the project in the form of a long term (40 year) ground lease agreement. Republic will also take over the maintenance and landscaping operation of these intersections giving overworked Caltrans maintenance staff the ability to focus on other areas of the freeway system. Republic is planning to develop a 15 megawatt of solar system and the power generated from this system will be sold to a local Investor Owned Utility through a Power Purchase Agreement.

The Need for the Proposal

Morgan Hill recognizes the benefit of creating a solar power generating system within our city. We believe that central to an effective system will be a robust community outreach effort, that goes well beyond the community outreach required for environmental documents. The community outreach effort to be funded by this proposal will (i) bring together local stakeholders throughout Santa Clara County to identify community impacts and issues related to this innovative effort, (ii) create visual renderings and compile key project data, (iii) conduct four community meetings, (iv) compile community responses and establish a community feedback loop, and (v) provide information on the project to industry and general media. This community outreach will benefit not only the Santa Clara effort, but be useful for replication throughout the state and country.

How the Proposal Achieves the Intent of the Focus Area 1

The Solar Highway Pilot Project is a mechanism to achieve real, quantifiable reductions in greenhouse gas emissions that is consistent with local plans such as the *Morgan Hill Environmental Agenda*, San Jose's *Green Vision* and regional plans such as the Metropolitan Transportation Commission's *Bay Area Principals for Establishing Regional Greenhouse Gas Reductions Targets* to meet the goals of AB 32 and SB 375. Power produced from a renewable energy source will replace the need for power produced from "traditional greenhouse gas sources" such as burning coal or natural gas. This project will offset over 15,500 metric tons of carbon per year. The project represents a new innovative idea in land use: using infill, unusable, remnant land to create clean energy, while producing revenue for the State. This type of land use planning is consistent with the concept of creating infill development to preserve open space, while reducing vehicle miles traveled. The project will offset over 2 million car miles traveled per year.

PROPOSAL DESCRIPTION

Step 1: Threshold Requirements

1. **Describe how the Proposal is consistent with the State's Planning Priorities, Section 65041.1 of the Government Code.**
   a. **Promote Infill development and invest in existing communities**
   The Solar Highways Pilot Project will implement infill development by building solar arrays on existing freeway infrastructure. Because the project is close to the existing population, it has nearby connection to existing electrical infrastructure, and close proximity to existing PG&E electrical substations.
   b. **Protect, preserve and enhance environmental and agricultural lands, and natural and recreational resources**
   Many commercial scale solar projects across the state are being built on large tracts of land in the desert or on farmland in the Central Valley and Inland Empire. The Solar Highways Pilot Project protects this natural resource by creating facilities on remnant freeway property.
   c. **Encourage location and resource efficient development**
   The project is an application of an efficient development pattern that utilizes existing infrastructure to create renewable energy. The project uses existing power lines that are onsite or within 100 meters of the site to connect into the electrical grid. Because the project will be built in infill locations, it ensures that any new development associated with the project will use land efficiently, be built adjacent to the existing developed areas and located in an area appropriately planned for growth, and will be served by adequate transportation and essential utilities that will minimize the ongoing cost to taxpayers.

2. **Describe how the Proposal will reduce, on as permanent a basis that is feasible, greenhouse gas emissions consistent with:**
   a. **California's Global Warming Solutions Act of 2006**
   The Solar Highways Pilot Project will reduce greenhouse gas emissions on a permanent basis for the life of the project (up to 50 years) which makes it consistent with to California's Global Warming Solutions Act of 2006.
      i. **How will the Proposal reduce greenhouse emissions as compared with business as usual through 2020 and beyond?**
      The project will consist of a 15 megawatt PV energy generation system that will offset close to 15,000 metric tons of carbon per year. This new idea changes the renewable energy market and governments' idea of "business as usual", as it not only produces quantifiable renewable energy, but it also creates a revenue stream for the state. As Solar Highways succeeds in its pilot phase, it will be replicable throughout the state.
      ii. **Identify the indicators that will be used to measure whether the Proposal will meet greenhouse gas emission reduction targets or requirements**
      The project has measurable indicators that will allow us to track the actual amount of energy that will be created in real time. Adding the electricity generated over days, weeks and years, we can quantify the exact amount of carbon that will be offset through the creation of this project. This is the indicator we will use to determine the effect of our system on the environment and the success of our system goals as related to AB 32.
   b. **Any applicable regional Plan**
   The Solar Highway Pilot Project is a mechanism to achieve real, quantifiable reductions in greenhouse gas emissions that is consistent with regional and local plans such as:
      i. **Cite any applicable regional plans(s).**
      The Bay Area Regional Agency Climate Protection Program developed by MTC, ABAG, BAAQMD and BCDC; MTC's Bay Area Principals for Establishing Regional Greenhouse Gas Reduction Targets.

ii. Describe how your Proposal will be consistent with the greenhouse gas emission reduction strategies in the applicable regional plans(s).

- ***The Bay Area Regional Agency Climate Protection Program*** is a joint project of the region's four major planning agencies. It emphasizes reductions in greenhouse gas emission through alternate energy production and use, and emphasizes the development of programs that can be replicated statewide and nationwide. Solar Highways promotes both of these central goals.
- ***Metropolitan Transportation Commission's Bay Area Principals for Establishing Regional Greenhouse Gas Reductions Targets*** proposes per-capita greenhouse gas reductions of 7 percent by 2020 and 15 percent by 2035. Solar energy production in infill areas in the Bay Area, particularly in infill areas that are currently underutilized, is one of the important strategies for achieving greenhouse gas reductions.

3. Meet the Collaboration Requirements of the focus area applicable to the Proposal (See Section II).

a. See Section III, Focusing Funds, for the collaboration Requirements applicable to the Proposal.

The Solar Highways Pilot Project Meets the Collaborations Requirements of Focus Area #1: Local Sustainable Planning. We have received a letter from The Metropolitan Transportation Commission, as representative of the four agency climate change collaborative, and a letter from the neighboring City of San Jose concurring that this project is consistent with its goals for San Jose and Santa Clara County.

Section 2: Program Objectives

Improve Air and Water Quality

Air Quality

1. What strategies will be used to meet the air quality objectives?

The Solar Highways Pilot Project will utilize the strategy of creating clean energy to reduce air pollution by effectively decreasing the amount of carbon emitted into the atmosphere.

Quantified Carbon Offsets*

Interchange	Acreage	MWdc	MWh per Year	Metric Tons of C02 Offset Per Year	Car Miles Offset Per Year**	Trees Offset Per Year
Highway 101 & Highway 85 South	14.78	3.41	4,842	3,477	500,000	17,700
Highway 101 & Masten Avenue	9.69	2.24	3,174	2,279	327,808	11,604
Highway 101 & East San Martin Avenue	6.24	1.44	2,044	1,468	211,096	7,473
Highway 101 & Branham Lane	7.69	1.77	2,519	1,809	260,149	9,209
Highway 101 & Coyote Creek Golf Drive	13.00	3.00	4,259	3,058	439,784	15,568
Highway 101 & East Dunne Avenue	5.53	1.28	1,812	1,301	187,077	6,623
Highway 101 & Tennant Avenue	6.14	1.42	2,011	1,444	207,713	7,353
TOTAL	**63.07**	**14.55**	**20,662**	**14,835**	**2,133,627**	**75,530**

** All Estimates Computed Using www.carbonify.com/carbon-calculator.htm*

***Assumes car gets 21mpg*

2. What indicator(s) will be used to measure the outcomes?

Indicators for air quality improvement are carbon emissions, ozone levels and levels of particulate matter and aerosols. This Pilot Project will offset close to 15,000 metric tons of carbon emissions per year, equivalent to approximately 2,000,000 car miles traveled. Ozone, a green house gas, particulate matter

and aerosols all increase due to increased carbon emissions. The table above shows the amount of energy that can be produced from each interchange per year and how much carbon can be offset.

3. How will the proposal be consistent with the SIP, as specified by the local air district?
The California Environmental Protection Agency Air Resources Board (ARB) has identified Santa Clara County as a Carbon Monoxide Maintenance Area with moderate (less than 12.7 parts per million) Carbon Monoxide levels. The project meets the goals of the 2004 Revision to the State of California Implementation Plan for Carbon Monoxide by reducing the need for the combustion of fossil fuels to produce electricity. Also, as a pilot project, this will be a best management practices (BMP) project that, when copied statewide, will affect other local air districts and will reduce: 8 hour ozone levels, levels of PM-10 and PM 2.5 as well as levels Carbon Monoxide.

Water Quality
4. What strategies will be used to meet the water quality objective?
The Solar Highways Pilot Project will utilize the strategy of creating clean energy to reduce thermal water pollution. Thermal pollution is the rise or fall in the temperature of a natural body of water caused by human influence. A common cause of thermal pollution is the use of water as a coolant by power plants. Elevated water temperatures decreases oxygen levels (which can kill fish) and affects ecosystem composition, such as invasion by new thermophilic species.

5. What indicator(s) will be used to measure the outcomes?
The indicator for water quality is thermal pollution reduction. For example, the Potrero Generating Station in San Francisco, which uses OTC, discharges water to San Francisco Bay approximately 10°C (20°F) above the ambient bay temperature. The energy generated from the Solar Highways Pilot Project will reduce the need for energy to be produced from this type of power plant and consequently will reduce thermal pollution.

6. How will the proposal be consistent with the Integrated Regional Water Management Plan?
In regards to thermal water pollution, the Solar Highways Pilot Project is consistent with several goals of the Bay Area Integrated Regional Water Management Plan (IRWMP). Most notable, the project will "contribute to the promotion of economic, social and environmental stability" through the community outreach efforts that are associated with the project and "Contribute to the protection and improvement of the quality of water resources" by effectively reducing thermal pollution. Please see the "Promote Water Conservation" section for further discussion on how the proposal meets the Bay Area IRWMP.

<u>Promote Public Health</u>
1. What indicators will be focused on to meet the public health objective?
Solar Highways will directly improve air quality, especially as this Pilot Project succeeds and it is replicated throughout the state. The air quality improvement will bring the positive public health benefits in reducing risks of health disease, bronchitis, and asthma, and in promoting active life styles for Californians. Solar Highways will also improve public health by improving community awareness of the effects of air quality on public health, through its community outreach effort. Solar Highways will measure increased community awareness of air quality impacts through a focus group to be held at the conclusion of the community outreach effort. Solar Highways will work with the Santa Clara Public Health Department, Morgan Hill Environmental Programs Division and San Jose Department of Environmental Services to detail the public health benefits of its solar power generation.

2. Describe how the proposal addresses and responds to the definition of a healthy community.
Solar Highways is consistent with the definition of Healthy Community set out by the state Department of Public Health. Creating infill sustainable energy provides for cleaner air, soil and water as well as preserving natural open spaces including agricultural lands. Renewable energy minimizes waste, toxics, and greenhouse gas emissions. The Solar Highways Pilot Project also contributes toward adequate levels

of economic and social development by having an agreement with the building trades union to provide living wage, green jobs for the construction and maintenance of the system.

3. Describe how, in the development and implementation of the proposal, public health co-benefits and potential adverse health consequences will be identified, and for any identified negative consequences that may be associated with the Proposal, the approach to mitigating or preventing these consequences.

The development and implementation of the proposal can be broken up into the two stages: construction and operations. During the construction phase of the project, potential adverse health consequences could include exposure to toxins in the ground by construction workers, and an increase in particle mater in the air due to dust. Environmental studies will be completed prior to construction to minimize the chances exposure to toxins and standard safety precautions will be used during construction. The project will also take measures to reduce the amount of dust caused in the construction process by using water trucks to dampen the earth. During the Operations phase, the majority of the health consequences associated with the project will be the result of traffic accidents. Extreme safety precautions have been designed to prevent accident rates from being adversely effected by the project including 52 foot setbacks from any Caltrans right-of-way, guardrails and security fencing as well as adequate design and maintenance of drainage devices to minimize the risk of flooding onto the roadway.

4. Describe the extent and nature of the coordination and collaboration with the local health officer/health department for the cities and counties including in your agency's jurisdiction or covered by the scope of the Proposal.

The Morgan Hill Environmental Programs Division will collaborate with the Santa Clara County Public Health Department, which will be part of the project advisory group, along with the San Jose Department of Environmental Services. The County and City both already have been contacted regarding the project.

Promote Equity

1. What strategies will be used to meet the equity objective?

The project will be generating jobs both in construction (approximately 280 workers to be hired, part time and full time during construction) and operations (approximately 30 part-time and full-time on-going jobs). The project already has a signed "Green Jobs" Agreement with the Santa Clara-San Benito Counties Building Trades Council (SBT) which insures "quality green construction jobs through contractors who provide prevailing wage, family health care, retirement benefits and apprenticeship training." The project also has a strategic partnership with the San Jose Conservation Corps (SJCC). The SJCC provides leadership training for disadvantaged youth, and promotes environmental projects.

Additionally in line with equity concerns, the project will promote local energy independence throughout California by reducing local communities' dependence on foreign oil. Historically, this dependence on foreign oil has impacted the cost of local energy and oil related goods such as automobile prices in direct ways such as oil embargos and indirect ways such as the war in Iraq and Afghanistan. In the future, renewable energy will allow residents to have lower priced access to energy and oil related goods.

2. What indicator(s) will be used to measure the outcomes?

The project will be promoting equity through (1) its Living Wage Green Jobs, (2) its work with the San Jose Conservation Corps (SJCC), and (3) its promotion of Local Energy Independence. Job creation and placement will be tracked and records kept of the number of workers employed both in construction and in on-going operations. The role of the SJCC participants will be tracked, including identification of skills obtained by the participants that can be utilized for future job placements.

3. Explain how disadvantaged communities will be engaged in the planning process.

The most direct involvement of low income communities will be through the SJCC, which will be an active partner in the project. Further, in the community outreach program, particular attention will be given to community outreach in low income neighborhoods of Santa Clara County, and encouraging these

neighborhoods to identify ways that they can become involved with the project and other alternative energy projects.

Increases Housing Affordability

1. What strategies will be used to meet the housing affordability objective?

Solar Highways will strengthen housing affordability in California as it generates solar energy that can be linked to the residential solar programs in California for reducing energy costs, especially for low income Californians. The developer of the Murphy Ranch affordable housing project in Morgan Hill installed solar panels for the project's common areas. Tenants have been able to save on their monthly electricity bills. Additionally, Morgan Hill envisions pursuing two further strategies: (1) engaging in discussions with affordable housing provides to potentially make reduced-cost green power available to their projects reducing the utility costs paid by residents, and (2) modeling successful community outreach strategies that affordable housing developers may use when introducing higher density communities throughout the state. Through our community outreach strategy, Morgan Hill will promote the benefits of renewable energy and how it can be used to reduce electrical bills in affordable housing projects.

2. What indicator(s) will be used to measure the outcomes?

The amount of solar energy produced by Solar Highways will be tracked and measured. Additionally, the City of Morgan Hill will work with San Jose and other Santa Clara County cities to examine additional ways that Solar Highways power might be directly linked to housing affordability, through reducing power costs for low income Santa Clara residents.

3. How will the proposal be consistent with housing affordability requirements under the RHNA?

Morgan Hill has met and exceeded its 1999-2006 RHNA. This program is consistent with RHNA goals as it promotes infill development and the protection of environmental and agricultural resources.

Promote Infill and Compact Development

1. What strategies will be used to meet the infill and compact development objective?

The core strategy of Solar Highways is one of infill and compact development, utilizing currently vacant land in built environments. Because the power from this project is generated within five miles of an existing power substation, near the end user, there will be minimal energy loss due to transmission. The project should encourage thinking of other ways of utilizing vacant land in built environments for energy production.

2. What indicator(s) will be used to measure the outcomes?

The amount of energy generated within infill locations and within five miles of existing substations will be measured. Also, the project will identify other uses of power generation on currently vacant land that might be spurred by Solar Highways.

Revitalize Urban and Community Centers

1. What strategies will be used to meet the urban and community center objective?

Solar Highways will directly improve the existing communities by maintaining the freeway rights of way for a minimum of 25 years, and by eliminating litter, trash and weeds that appear on these rights of way. Further, Solar Highways will be highly visible to the hundreds of thousands of motorists who utilize these highways, and will serve as "Solar Gateway Landmarks", indicating the community's commitment to alternative energy and reducing air pollution.

2. What indicator(s) will be used to measure the outcomes?

The appearance of the freeway rights of way will be monitored and recorded. Additionally, the focus groups conducted as part of the community outreach will test the heightened awareness of community members to alternative energy and community pride developed from the Solar Gateway Landmarks.

Protect Natural Resources and Agricultural Land

1. What strategies will be used to meet the natural resources and agricultural land objective?
Solar Highways will protect acres of sensitive habitat and agriculture lands throughout California as its land use will be limited to existing Caltrans right of way interchanges that are located within existing city services. Solar Highways will avoid placement of solar panels in any areas of "critical habitat". As an example, if during the Caltrans CEQA process, an intersection is determined to have a sensitive biological or cultural resource that cannot be mitigated, then that intersection will be eliminated as a site to locate solar power

By developing these areas with solar panels for commercial energy production, the Solar Highways Pilot Project will lessen the pressure of Investor Owned Utilities, like PG&E, to develop solar and wind energy in environmentally sensitive areas. With the passage of AB 32, California utilities are mandated to produce 33% their energy productions through renewable energies like solar. This mandate will put increased pressure on utilities to develop large scale solar and wind farms throughout the state. Logically, desert locations in the Mohave and large scale Central Valley farmland will be targets of future solar and wind development projects; however, these areas have proven to have environmental constraints. As an example, sensitive biological habitats that are home state and federally protected species like the Desert Tortoise would be impacted. Productive farmland will also be impacted as large scale solar power development can cause additional conversion of farmland triggering growth inducing impacts associated with suburban/urban sprawl.

2. What indicator(s) will be used to measure the outcomes?
For this objective, indicators include the number of acres of sensitive biological and cultural resources avoided as well as the number of acres of farmland that will be avoided because of infill solar development throughout the state. For this project alone, approximately 65 acres of natural habitat or farmland is being avoided.

3. How will the proposal be consistent with the California Wildlife Action Plan, Natural Community Conservation Plan and the Surface Mining and Reclamation Act?
The proposal is consistent with the California Wildlife Action Plan, Natural Community Conservation Plan and the Surface Mining and Reclamation Act as it is an example of preserving existing natural land for wildlife, mining and farming by reusing existing infill property.

Reduce Automobile Usage and Fuel Consumption

1. What strategies will be used to meet the automobile use and fuel consumption objective?
Because the Solar Highways Pilot Project is an infill project, near to population centers and literally on the freeway, the vehicle miles traveled to construct the system and for operations and maintenance throughout the lifetime of the project will be significantly reduced compared to other renewable energy projects in the Mojave Desert or in the Inland Empire.

2. What indicator(s) will be used to measure the outcomes?
The vehicle miles traveled (VMT) required for construction and operations of Solar Highways will be compared to construction and operations of solar projects in other areas of California.

3. How will the proposal be consistent with the California Transportation Plan?
Solar Highways is consistent with the California Transportation Plan by meeting the Plan's goals of reducing VMT through solar production in infill areas, through the link of transportation assets and alternative energy production, and through the nexus of the transportation network and climate change protection.

Improve Infrastructure Systems

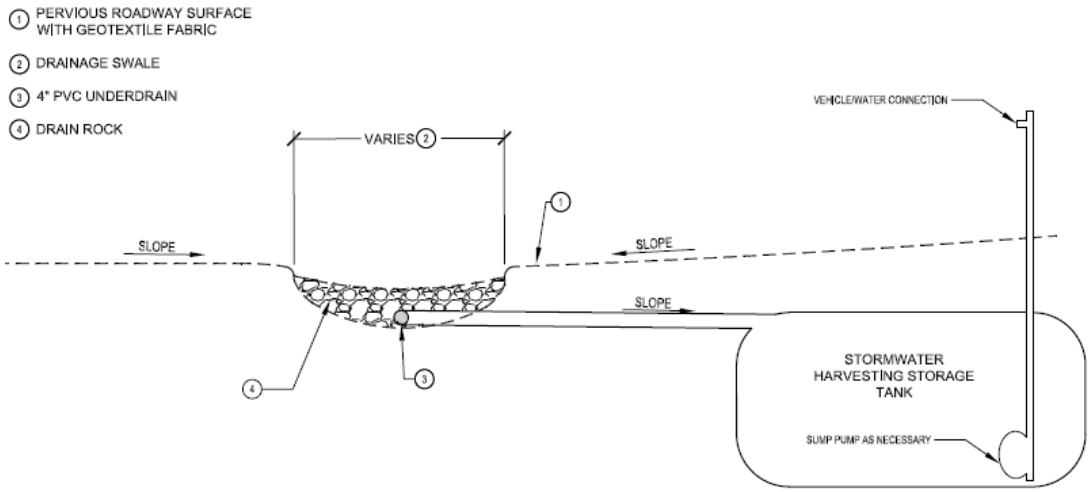
1. What strategies will be used to meet the infrastructure systems objective?
This proposal is to create electrical infrastructure on existing freeway infrastructure. Because the electrical infrastructure will be built close to existing electrical substations, and tie into the grid at existing

electrical lines, this project will represent an improvement to the existing systems. Also, the freeway interchanges that are a part of the project will benefit from upgraded maintenance.

2. What indicator(s) will be used to measure the outcomes?
The amount electrical power generated, as well as the future maintenance levels of the freeway interchanges will be indicators for meeting this objective.

Promote Water Conservation

1. What strategies will be sued to meet the water conservation objective?
The Solar Highways Pilot Project plans to include a water reuse system onsite. Underneath the lower sloped end of the fixed, ground mounted solar panels, a pervious surface with geotextile fabric will be placed at the bottom of a drainage swale. The water will flow through this swale into a 4" PVC under drain into a rainwater harvesting storage tank. This water will be used to clean the panels as it will be pumped into water trucks that will supply the cleaning water. Please see the diagram below to that shows how the water will be reused.



STORMWATER HARVESTING DETAIL
SCALE: NTS

1. What indicator(s) will be used to measure the outcomes?
Indicators that will be used to measure the outcome of the project include the amount of water stored and reused onsite, as well as the amount of storm water run-off that will be avoided.

2. How will this help the State achieve its goal to reduce water consumption 20 percent by 2020?
The project will help the State achieve its goal of reducing water consumption by 20% by reusing onsite rain water to clean the solar panels.

3. Explain how this proposal is consistent with the Integrated Regional Water Management Plans.
Solar Highways is consistent with every objective of the Bay Area Integrated Regional Water Management Plan. As we strive to reuse onsite water and avoid significant storm water run-off, we are contributing to "improved supply reliability" and "the protection and improvement of the quality of water resources". Because the project is built on infill locations, thus preserving natural land, the project "contributes to the protection and improvement of hydrologic function" and "promotes environmental sustainability."

Promote Energy Efficiency and Conservation

1. What strategies will be used to meet the energy efficiency and conservation objective?

Solar Highways is a system that will create renewable, clean energy. By its nature, it defines energy efficiency and conservation through the use of solar energy. Also, because of the infill nature of the project, and the close proximity to existing electoral substations and electrical tie-ins, energy that is produced will not be lost in the transmission of energy from the source to the end user.

2. What indicator(s) will be used to measure the outcomes?
For this objective, indicators include the amount of renewable energy that is produced, as well as the amount of energy that is saved in transmission. For example, in the United States, and estimated 6.5% of all power produced is lost in transmission.

Strengthen the Economy

1. What strategies will be used to meet the economy objective?
The Solar Highways Pilot Project is a $75 million investment into the local economy. The project will employ a projected 280 workers, a mix of part time and full time, during construction, and 30 workers, a mix of part time and full time, on an on-going basis during the life of the project. Additionally, Caltrans will receive a portion of the project revenue, and also will gain financially by being free of the costs associated with maintaining the interchanges. Further, by reducing air pollution that directly effects the health of the citizens of California, the project will affect the state healthcare system by reducing the number of patients, therefore saving taxpayer dollars.

2. What indicator(s) will be used to measure the outcomes?
The following indicators will track the economic outcomes: (1) green construction and operation jobs generated; (2) decreased healthcare costs, (3) income to Caltrans as a project partner, (4) savings to Caltrans in maintenance of the rights of way.

Step 3: Priority Considerations

1. Proposal demonstrates ongoing collaboration with state, regional and local, public and private stakeholders and community involvement *(include in work plan)*.
a. Describe tasks undertaken by all entities involved in the work plan.

Morgan Hill –will be the administrative lead for the grant and will:
- Help to manage the overall planning effort
- Help to coordinated community outreach strategy
- Identify key stakeholders in the project including state and regional agencies as well as to nonprofit groups, business organizations, community groups and the public in general
- Help to identify questions and issues that need to be highlighted as a part of the outreach process
- Give input into community outreach materials, and meeting organization
- Attend community outreach meetings
- Work in coordination to create project website describing best management practices of project as a part of the overall media strategy
- Provide timely project reporting and contracting necessary to administer the grant

Republic Cloverleaf Solar – will coordinate and direct all consultants used throughout the planning process and will:
- Assemble Planning and Design team
- Help to coordinated community outreach strategy
- Direct consultants to create all community outreach materials including 3D renderings
- Coordinate outreach effort among all of the affected public agencies to determine key stakeholders and issues that need to be addressed as a part of the community outreach process
- Lead the public engagement effort and conduct outreach meetings as well as set up focus groups after the process to determine the effect of the media and outreach effort
- Coordinate media strategy to promote best management practices

Caltrans – is the property owner and will be responsible for negotiating the ground lease terms with Republic as well as being the lead agency for the CEQA environmental process and will be responsible for issuing encroachment permits to construct the system. Related to the planning aspects of this project, Caltrans will:

- Give input into community outreach strategy
- Help identify key stakeholders and issues
- Promote Caltrans Deputy Directive to create new solar opportunities on Caltrans controlled facilities
- Describe at community meetings how this project is meeting Caltrans safety and operations standards as well as how this project generates revenue for the State of California.

Valley Transportation Authority (VTA) – has a vested interest in the Solar Highways project and will be an active member of all community meetings. The VTA will:

- Give input into community outreach strategy
- Help identify key stakeholders and issues
- Describe at community meetings how this project is not going to affect VTA's 25-Year plan to upgrade and improve the freeways within their jurisdiction
- Describe at community meetings how VTA funded landscape improvements in certain interchanges will be mitigated by replacement landscaping and get feedback from the community as to which interchanges should receive the replacement landscaping

San Jose – has three (3) interchanges located within the City.

- Give input into community outreach strategy
- Help identify key stakeholders and issues
- Discuss at community meetings how the Solar Highways project relates to the San Jose "Green Vision".

Santa Clara County – has two (2) interchanges located within the unincorporated County and will:

- Give input into community outreach strategy
- Help identify key stakeholders and issues

Metropolitan Transportation Authority – has a regional plan for Santa Clara County and will:

- Give input into community outreach strategy
- Help identify key stakeholders and issues
- Describe at community meetings how the Solar Highways fits within its regional plan.

San Jose Conservation Corps – will be working with the project to give disadvantaged youth work experience.

b. Describe how other entities will be engaged in the development and/or implementation of the Proposal (e.g., local governments, state entities, COGs, MPOs, transit agencies, health agencies, air districts, local businesses, landowners, general public, environmental groups, low income households and/or groups that represent them, etc.).
The following government agencies and nonprofit groups will be involved in the project: Santa Clara Public Health Department, Silicon Valley Leadership Group, Sierra Club, Greenbelt Alliance, San Jose Chamber of Commerce, Morgan Hill Chamber of Commerce, SolarTech, and the San Jose Department of Environmental Services

c. Describe how the community will be engaged in the planning process.
Community outreach is at the heart of this planning grant. Solar Highways envisions a planning process that will have the following three goals of community engagement (1) **Encouraging community ownership of the project:** The community outreach will have five main elements, as set out in the work plan: (i) working with local stakeholders and Santa Clara officials to identify community impacts and issues related to Solar Highways, (ii) creating visual renderings and compiling key project data for presentations, (iii) conducting 4 community meetings, (iv) compiling community responses and establishing a community feedback loop, to keep the communities involved in the project, and (v) providing information on the project to industry periodicals as well as California media to spur other solar infill projects. A central goal of this

community outreach will be to have Santa Clara County communities take ownership of the project, providing ideas for its improvements and ties to other community development goals.
(2) **Heighten awareness of solar power in infill areas**: The community outreach will focus on the solar installations in the interchanges. It will also discuss more generally the role and values of solar power.
(3) **Identifying community issues relevant to other solar infill projects**: The community outreach process will be carefully documented, with the community issues and responses shared with other communities in California and throughout the nation considering solar infill projects.

2. **Proposal demonstrates strategies or outcomes that can serve as best practices (BPS) for communities across the state.** ***Note: Tools, process and data funded by the grant must be posted on web-site.***
   a. **Does the proposal include tools or processes that could be easily accessed and used by other government agencies to develop plans or strategies for sustainable communities?**
   As noted throughout this proposal, Solar Highways is a pilot project that as it succeeds will be replicable throughout the state and nation. Creating commercial solar power generation systems on infill, excess freeway right of way, while generating revenue for the government through a public/private partnership, is an idea that is applicable throughout the freeway system in California and other states. Solar Highways is building in several strategies that will enable replication by other government agencies, including: (i) establishment of a Solar Highways project website providing fullest project information, (ii) identification on the website of community concerns and issues, as well as tracking of the jobs generated, and (iii) establishment of a feedback loop for ongoing community participation in the project, that will be shared with other government agencies, and (iv) dissemination of project information to industry periodicals and sharing of industry perspectives with other government agencies.
   b. **How will your agency promote and share the Proposal's information, tools or processes?**
   The Solar Highways information will be shared by: (1) the Solar Highways website, (2) energy industry periodicals and private sector energy firms, (3) general press strategy as set out in the work plan.

3. **Proposal is leveraged with additional resources, in-kind or finds.** ***Identify in Appendix L, Budget.***
   a. **Identify funding sources and amount already committed to the proposal and expected timing of funds. Details whether funds are in the form of cash contributions, in-kind services, volunteer effort, donated labor or materials, technical expertise, etc.**
   The planning element of this project, as set out in the proposal, has a cash match of $147,000, or 28% of the cost of this planning effort. The match will be available at the same time as the grant funding. The match will be provided by the private sector partner, Republic.
   b. **Identify the potential future funding sources and the amount expected to be committed to the proposal. Detail whether funds are in the form of cash contributions, in-kind services, volunteer effort, donated labor or materials, technical expertise, etc.**
   The full cost of Solar Highways is projected to be $75 million. The project capital will come from Republic and through private investors and lenders. Republic is part of the Republic Family of Companies, which has a history of managing large-scale, successful real estate projects, usually in concert with public entities.

4. **Proposal Addresses Climate Change Impacts.**
   a. **Identify the potential climate change impacts on the population, or human or natural area, or systems most vulnerable to those impacts within the planning area.**
   The proposal impacts a number of human and animal populations as well as systems in the area. The project will improve public health, preserve natural habitat, and reduce greenhouse gas emissions through the creation of renewable energy and the promotion of energy efficiency.
   b. **How does the proposal improve adaptation to the impacts for these populations, human or natural areas, or systems?**

The project is an example of the human race adapting to the threat of climate change. As we have come to understand the health effects of air and water pollution and the global impact of climate change, we as a community understand the need for the reduction of carbon emissions and how creating energy from renewable sources can help us to meet this goal. Because the project will slow global warming, it will reduce the need for the animal population to adapt to climate change.

5. **Proposal serves an economically disadvantaged community.**
   a. **How will this proposal benefit a disadvantaged or severely disadvantaged community?**
   The project will benefit economically disadvantaged and severely disadvantaged communities in Santa Clara County in two major ways: (1) through Solar Highways' partnership with the San Jose Conservation Corps to hire and train youth from economically disadvantaged communities in green construction and systems maintenance skills, and (2) through targeted efforts at 3 economically disadvantaged communities in Santa Clara, identified with the assistance of Assemblyman Joe Coto's office.

   b. **Discuss how the economically disadvantaged community has been and will continue to be engaged and participatory in the development of the proposal.**
   Contact already has been made with the San Jose Conservation Corps, and the Corps has been and will continue to be involved in the project development, for placements of Corps members in construction tasks and in ongoing operations tasks. Contact also already has been made with several Santa Clara County officials regarding identifying roles for economically disadvantaged communities in this project. In particular, Solar Highways has been working with Assemblyman Coto and his office to identify economically disadvantaged neighborhoods in Santa Clara County to target in the community outreach, and ways that the communities might benefit from the project. Benefits currently under discussion include (i) targeting of jobs in construction and operate to operations,(ii) reduction of energy costs, and (iii) developing expertise in these neighborhoods in solar installation and maintenance that can be utilized for neighborhood improvements. The 3 communities targeted are set out in the Disadvantaged Community Documentation. Two of these communities are in San Jose (which has 3 interchanges) and one is in Gilroy. One of the communities, in downtown San Jose, is in Assemblyman Coto's district; the other two were chosen as representing other parts of the project area of Santa Clara County.

Step 4: Organizational Capacity

1. **What is your organization's experience in completing this type of Proposal or similar Proposals? Is the expertise needed for the successful development of the Proposal available within the organization? If not, how do you plan to acquire it?**

This project brings together the expertise of public sector and private sector entities that have a track record in developing major projects. Morgan Hill has vast experience in working with private development entities and has a long history of completing large public projects of this scale in the community. In the past ten years, the City has successfully designed, constructed and operated the following new facilities: the Community and Cultural Center, the Aquatics Complex, a new Public Library, and the Centennial Recreation Center. Each of these facilities required a community engagement strategy to best determine the needs of the community and ensure that its design and construction were completed in concert with their host neighborhoods. Morgan Hill will rely on Republic and their development team for their experience with commercial solar development. Republic Cloverleaf Solar is a part of the Republic Family of Companies, a full service real estate development and investment company specializing in public/private partnerships. Republic has developed and invested in real property transactions totaling over 17 million square feet valued in excess of $4 billion. Republic has a track record of hiring and managing consultants with the background, experience, and expertise needed to create any type of real estate project. Republic will be working with McCalmont Engineering, a solar engineering and design firm. McCalmont has over 40 combined of years of experience designing and building commercial photovoltaic systems, and in that time have created over 35 megawatts (dc) of total power

over hundreds of projects. They specialize in array design and optimization to maximize the amount of renewable energy that is created for a particular system. They are also experts in new technology and follow the trends in the market to blend the perfect technology with the desired price point and amount of power required. Republic will also be working with HMH Engineers, a civil engineering company that has extensive experience working with Caltrans in Santa Clara County. Specifically, HMH has provided surveying, preliminary engineering , and final engineering design services for projects such as the Highway 101-Bailey Avenue Interchange, the Highway 101-Tully Road Interchange, the Highway 101-Route 152 Interchange, and the Highway 101-Capitol Expressway Interchange, in addition to several other upgrades for the state highways throughout Santa Clara County. Finally, Republic will be working with Steinberg Architects to create the 3D visual renderings that are the key to a successful community outreach campaign.

2. Do you have active partners that will help develop the Proposal? How?

Caltrans: Caltrans is the lead agency in terms of land use, environmental clearance, and encroachment permits. Caltrans brings to this project the expertise in highway safety and construction, as well as a strong commitment to project success. The California Transportation Commission, in approving the agreement with Republic, praised the project for the direct revenues it would bring to Caltrans and the opportunity to replicate statewide.

Valley Transportation Authority: VTA is charged with upgrading and improving the freeways within Santa Clara County. For VTA this project is an opportunity to reduce its costs on maintenance, while making use of a currently under-utilized resource for green energy in the heart of the green technology venture capital center.

City of San Jose: The City of San Jose has its Green Vision policy, and is actively seeking opportunities for greenhouse gas reduction.

San Jose Conservation Corps: The San Jose Conservation Corps is one of a number of local youth conservation corps throughout California, and the success of the project in Santa Clara will assist youth conservation corps participation elsewhere.

3. How will the Proposal be kept on schedule and within budget?

The project will be managed on a day to day basis by the City of Morgan Hill, with assistance from Republic. The City and Republic have vetted this project with partners and are confident that the budget put forward is extremely accurate. The City will be responsible for tracking deliverables in accordance with the project timetable. All activities, timetables and costs will be transparent, and posted on the project website. Additionally, the participation of the varied project partners, particularly Caltrans, VTA, and the City of San Jose, will ensure that any project obstacles are addressed expeditiously, and by a group of public and private entities with a variety of expertise.

4. If the Proposal goes over budget, explain your contingency plans to cover the cost.

Republic Cloverleaf Solar will cover any costs over budget.

5. Identify in the work plan how the Proposal will be implemented, including zoning updates if applicable.

The work plan identifies the tasks to be undertaken in achieving an effective community planning process to ensure Solar Highways success. This community outreach and education is a key element in the planning process prior to beginning the entitlements, design, construction, and operations phases. After the approval from the Morgan Hill City Council of the Grant Resolution, the process will begin and follow the work plan with Morgan Hill as the lead agent. After the community outreach and education process is complete, we take all comments into consideration and incorporate those comments into the design of the systems where possible. We will also conduct focus groups to determine the effectiveness of the process related to the educational aspects of renewable energy and public health.